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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,584	06/27/2003	Yu Liu	0219.0017c	5810

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EXAMINER	
VATHYAM, SUREKHA	
ART UNIT	**PAPER NUMBER**
1795	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/607,584	LIU ET AL.	
	Examiner	Art Unit	
	Surekha Vathyam	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-10,12-18,21-28 and 30-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-10,12-18,21-28 and 30-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 3 – 10, 12 – 18, 21 – 28 and 30 – 54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. These claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, each of new independent claims 37, 38 and 39 recite the limitation, "one or more reagent(s) that function to keep analytes in a reduced form". The specification as originally filed has support throughout for "one or more reagent(s) that function to **help** keep protein analytes in a reduced form" (emphasis added) (for example, see page 7, line 23 – page 8, line 2 of the instant specification). Nowhere in the specification is there support for the reagent(s) that function to keep analytes in a reduced form. Each of the new independent claims 37, 38 and 39 have been amended to recite the limitation, "molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity". The instant specification as filed originally discloses the gel having one of two components providing a sufficient "structural framework **for** rigidity" (emphasis added) (see instant specification page 12, lines 23 – 26) and not a "structural

framework **and** rigidity" as claimed (emphasis added). The specification also discloses "branched polymers (such as dextran) involving entangled monomers" (page 12, line 26 – page 13, line 11). However, there is no disclosure of hydrophilic **polymers** being entangled and further no support for hydrophilic polymers being entangled "to provide said gel's structural framework and rigidity".

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 – 10, 12 – 18 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 37 from which claims 3 – 10 and 12 – 18 depend, recites the limitation "one or more reagent(s) that function to keep analytes in a reduced form" in lines 7 – 8. Claim 37 is directed to an aqueous gel, it is unclear what if any analytes are being referred to in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3 – 9, 12 – 13, 16 – 18, 21 – 27, 30 – 31, 34 – 46, 48 – 49 and 52 – 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guttman et al. (US 5,370,777).

Regarding claim 37, Guttman ('777) discloses an aqueous gel (column 6, lines 44 – 51), said gel having a structural framework and rigidity (column 9, lines 14 – 22),

wherein said aqueous gel consists essentially of an aqueous tris(hydroxymethyl) aminomethane – borate buffer solution column 5, lines 63 – 67) containing sodium dodecyl sulfate; and an alcohol (column 9, lines 38 – 45); and a hydrophilic polymer (column 8, lines 45 – 54) dissolved in said buffer solution, wherein molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity (column 9, lines 14 – 22).

Guttman ('777) further discloses that the pH of the tris(hydroxymethyl) aminomethane – borate buffer is "preferably between about 8.0 and about 8.5, and most preferably about 8.3" (column 13, lines 12 – 16). Guttman ('777) also discloses the pH of the buffer should be in the alkaline range for anionic surfactants such as sodium dodecyl sulfate (SDS), i.e., between about 8.0 and 10.0 (column 13, lines 6 – 11) and with respect to SDS surfactant, a most preferred pH is about 8.8 (column 13, lines 11 – 12). The difference between instant claim 37 and Guttman ('777) is that claim 37 requires a pH above 8.0 and below 8.3, while Guttman ('777) does not disclose a specific point within this range but instead discloses ranges encompassing the claimed range such as about 8.0 to about 8.5 (column 13, lines 12 – 16) and between about 8.0 and 10.0 (column 13, lines 6 – 11) as well as the overlapping range "about 8.3". In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). The

term "most preferred pH" with regards to the SDS surfactant (column 13, lines 11 – 12), is not a limiting term. Guttman ('777) discloses a pH range between "about 8.0 and 10.0" for anionic surfactants (column 13, lines 6 – 11). It would have been obvious to one of ordinary skill in the art to have clearly understood that there could be other pH values in the range. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Guttman ('777) discloses reagents such as DTT, 2-mercaptoethanol (column 18, lines 22 – 42) and EDTA (column 19, lines 4 – 5) that keep protein analytes in a reduced form, introduced into the gel medium (column 18, lines 39 – 42 and column 19, lines 5 – 8). These reagents by virtue of being very small molecules, will diffuse into the gel. Additionally, EDTA, being a charged molecule will easily migrate through the gel. Alternatively, the reducing agent will break the disulfide bonds in protein analytes and the resultant product with sulfhydryl groups (-SH) are reducing agents.

Regarding claim 38, Guttman ('777) discloses a capillary electrophoresis system (column 6, lines 44 – 51, comprising a capillary tube (column 6, lines 52 – 67, column 9, lines 64 – 68 and column 11, lines 43 – 47) containing an aqueous gel (column 6, lines 44 – 51), said gel having a structural framework and rigidity (column 9, lines 14 – 22), wherein said aqueous gel consists essentially of an aqueous tris(hydroxymethyl) aminomethane – borate buffer solution column 5, lines 63 – 67) containing sodium dodecyl sulfate; and an alcohol (column 9, lines 38 – 45); and a hydrophilic polymer

(column 8, lines 45 – 54) dissolved in said buffer solution, wherein molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity (column 9, lines 14 – 22).

Guttman ('777) further discloses that the pH of the tris(hydroxymethyl)aminomethane – borate buffer is "preferably between about 8.0 and about 8.5, and most preferably about 8.3" (column 13, lines 12 – 16). Guttman ('777) also discloses the pH of the buffer should be in the alkaline range for anionic surfactants such as sodium dodecyl sulfate (SDS), i.e., between about 8.0 and 10.0 (column 13, lines 6 – 11) and with respect to SDS surfactant, a most preferred pH is about 8.8 (column 13, lines 11 – 12). The difference between instant claim 38 and Guttman ('777) is that claim 38 requires a pH above 8.0 and below 8.3, while Guttman ('777) does not disclose a specific point within this range but instead discloses ranges encompassing the claimed range such as about 8.0 to about 8.5 (column 13, lines 12 – 16) and between about 8.0 and 10.0 (column 13, lines 6 – 11) as well as the overlapping range "about 8.3". In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). The term "most preferred pH" with regards to the SDS surfactant (column 13, lines 11 – 12), is not a limiting term. Guttman ('777) discloses a pH range between "about 8.0 and 10.0" for anionic surfactants (column 13, lines 6 –

11). It would have been obvious to one of ordinary skill in the art to have clearly understood that there could be other pH values in the range. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Guttman ('777) discloses reagents such as DTT, 2-mercaptoethanol (column 18, lines 22 – 42) and EDTA (column 19, lines 4 – 5) that keep protein analytes in a reduced form, introduced into the gel medium (column 18, lines 39 – 42 and column 19, lines 5 – 8). These reagents by virtue of being very small molecules, will diffuse into the gel. Additionally, EDTA, being a charged molecule will easily migrate through the gel. Alternatively, the reducing agent will break the disulfide bonds in protein analytes and the resultant product with sulfhydryl groups (-SH) are reducing agents.

Regarding claim 39, Guttman ('777) discloses a capillary electrophoresis system (column 6, lines 44 – 51, comprising a capillary tube (column 6, lines 52 – 67, column 9, lines 64 – 68 and column 11, lines 43 – 47) containing an aqueous gel (column 6, lines 44 – 51), said gel having a structural framework and rigidity (column 9, lines 14 – 22), wherein said aqueous gel comprises an aqueous tris(hydroxymethyl) aminomethane – borate buffer solution column 5, lines 63 – 67) containing sodium dodecyl sulfate; and an alcohol (column 9, lines 38 – 45); and a hydrophilic polymer (column 8, lines 45 – 54) dissolved in said buffer solution, wherein molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity (column 9, lines 14 –

22); and wherein said gel forms a dynamic coating on the inner surface of said capillary tube (column 9, lines 38 – 45).

Guttman ('777) further discloses that the pH of the tris(hydroxymethyl)aminomethane – borate buffer is "preferably between about 8.0 and about 8.5, and most preferably about 8.3" (column 13, lines 12 – 16). Guttman ('777) also discloses the pH of the buffer should be in the alkaline range for anionic surfactants such as sodium dodecyl sulfate (SDS), i.e., between about 8.0 and 10.0 (column 13, lines 6 – 11) and with respect to SDS surfactant, a most preferred pH is about 8.8 (column 13, lines 11 – 12). The difference between instant claim 39 and Guttman ('777) is that claim 39 requires a pH above 8.0 and below 8.3, while Guttman ('777) does not disclose a specific point within this range but instead discloses ranges encompassing the claimed range such as about 8.0 to about 8.5 (column 13, lines 12 – 16) and between about 8.0 and 10.0 (column 13, lines 6 – 11) as well as the overlapping range "about 8.3". In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). The term "most preferred pH" with regards to the SDS surfactant (column 13, lines 11 – 12), is not a limiting term. Guttman ('777) discloses a pH range between "about 8.0 and 10.0" for anionic surfactants (column 13, lines 6 – 11). It would have been obvious to one of ordinary skill in the art to have clearly

understood that there could be other pH values in the range. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Guttman ('777) discloses reagents such as DTT, 2-mercaptoethanol (column 18, lines 22 – 42) and EDTA (column 19, lines 4 – 5) that keep protein analytes in a reduced form, introduced into the gel medium (column 18, lines 39 – 42 and column 19, lines 5 – 8). These reagents by virtue of being very small molecules, will diffuse into the gel. Additionally, EDTA, being a charged molecule will easily migrate through the gel. Alternatively, the reducing agent will break the disulfide bonds in protein analytes and the resultant product with sulfhydryl groups (-SH) are reducing agents.

Regarding claims 3, 21 and 40, Guttman ('777) discloses said one or more reagent(s) that function to keep analytes in a reduced form include a reducing reagent (column 18, lines 22 – 42).

Regarding claims 4, 22 and 41, Guttman ('777) discloses said reducing reagent is selected from the group consisting of 2-mercaptoethanol, dithiothreitol (DTT), dithioerythreitol (DTE), and tris(2-carboxyethyl)phosphine (column 18, lines 22 – 42).

Regarding claims 5, 23 and 42, Guttman ('777) discloses said reducing reagent is dithiothreitol (DTT) (column 18, lines 22 – 42).

Regarding claims 6, 24 and 43, Guttman ('777) discloses said one or more reagent(s) include a metal ion chelator (column 19, lines 4 – 5).

Regarding claims 7, 25 and 44, Guttman ('777) discloses said metal ion chelator is ethylenediaminetetraacetic acid (EDTA) (column 19, lines 4 – 8).

Regarding claims 8, 26 and 45, Guttman ('777) discloses said hydrophilic polymer is selected from the group consisting of: dextran, polyacrylamide, cellulose derivatives and polyethylene oxide (column 8, lines 50 – 54).

Regarding claim 9, 27 and 46, Guttman ('777) discloses said hydrophilic polymer is dextran (column 8, lines 50 – 54).

Regarding claim 12, 30 and 48, Guttman ('777) discloses said alcohol is present at a concentration of from about 0.1% to about 30% (V/V) (column 9, lines 23 – 30).

Regarding claim 13, 31 and 49, Guttman ('777) discloses said alcohol is selected from the group consisting of: methanol, ethanol, ethylene glycol and glycerol (column 9, lines 38 – 45).

Regarding claim 16, 34 and 52, Guttman ('777) discloses said Tris-borate buffer is present at a concentration of from about 0.1 M to about 1.0 M (column 10, lines 51 – 54).

Regarding claim 17, 35 and 53, Guttman ('777) discloses the pH is "preferably between about 8.0 and about 8.5, and most preferably about 8.3" (column 13, lines 12 – 16). Guttman ('777) also discloses the pH of the buffer should be in the alkaline range for anionic surfactants such as sodium dodecyl sulfate (SDS), i.e., between about 8.0 and 10.0 (column 13, lines 6 – 11). The difference between instant claim 17 and Guttman ('777) is that claim 17 requires a pH of 8.1 ± 0.1, while Guttman ('777) does not disclose a specific point within this range but instead discloses ranges

encompassing the claimed range such as about 8.0 to about 8.5 (column 13, lines 12 – 16) and between about 8.0 and 10.0 (column 13, lines 6 – 11). In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). "[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003).

Regarding claim 18, 36 and 54, Guttman ('777) discloses said analytes include analytes selected from the group consisting of: proteins, polypeptides, peptides and nucleic acid molecules (column 10, lines 1 – 20).

10. Claims 10, 28 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guttman et al. (US 5,370,777) in view of "Dextran Product Information" Sigma-Aldrich (2001) found at http://www.sigmaaldrich.com/sigma-aldrich/product_information_sheet/d5376pis.pdf.

Guttman ('777) discloses the aqueous gel medium as discussed with regards to claim 9 above and the capillary electrophoresis system as discussed with regards to each of claims 27 and 46 above.

Regarding claims 10, 28 and 47, Guttman ('777) discloses said dextran has a molecular weight of 2,000 kilodaltons (column 5, lines 63 – 67) and was obtained from Sigma Chemical Corp., St. Louis, MO with a Product No. D-5376 (column 16, lines 54 –

59) but does not explicitly disclose the linkages therein. The Dextran Product Information from Sigma-Aldrich, St. Louis, MO is cited because it gives details about Product No. D-5376 including the information that dextran possesses a non-cross-linked structure composed of approximately 95% alpha-D-(1-6) linkages (1st page left hand column, Product Description paragraph, first 4 lines). Guttman ('777) discloses the molecular weight and source and Product No. of dextran but not its composition. Therefore, it would have been obvious to one of ordinary skill in the art to have looked at the product information provided by the supplier of the product.

11. Claims 14 – 15, 32 – 33 and 50 – 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guttman et al. (US 5,370,777) in view of Guttman (US 5,213,669).

Guttman ('777) discloses the aqueous gel medium as discussed with regards to claim 13 above and the capillary electrophoresis system as discussed with regards to each of claims 31 and 49 above.

Regarding claims 14, 32 and 50, Guttman ('777) does not explicitly disclose the alcohol is glycerol.

Guttman ('669) teaches an aqueous gel medium and a capillary electrophoresis system wherein the alcohol is glycerol (column 5, lines 7 – 8).

It would have been obvious to one of ordinary skill in the art to have modified the aqueous gel medium of Guttman ('777) to include glycerol as taught by Guttman ('669) because as explained by Guttman ('669), the "polyol" (glycerol and ethylene glycol

being representative examples), help to coat the inner walls of capillaries that they occupy (column 5, lines 3 – 7).

Response to Arguments

12. Applicant's arguments filed 11 October 2007 have been fully considered but they are not persuasive.

13. Applicant states that support for the new limitation concerning the reducing agent may be found on page 2, lines 1 – 4 of the specification; however, these lines do not mention any reducing agent.

14. Applicant amended some of the independent claims to read that the gel "consists essentially of" the buffer and polymer. However, applicant uses the open language term "containing" to list some of the components which the buffer may contain such as SDS. alcohol and a reagent. Of course the buffer, as claimed, may contain additional compounds such as water or urea.

15. Applicant's arguments concerning "not permanently affixed to the capillary wall", do not relate to any claim limitation.

16. Guttman ('777) discloses the same reagents that function to keep analytes in reduced form as those of the instant application: DTT, EDTA and mercaptoethanol. Since they are the identical substances of course they would have the same capability as applicant's. At least some of these small molecules would necessarily enter the gel by diffusion. The reduced sulfide groups of the proteins of Guttman ('777) (column 18, line 22) are also reducing agents.

17. Applicant ignores the plain teachings of Guttman ('777) at column 7, lines 5 – 11, "As used herein, the term 'combinations' is meant to indicate that one or more of the following components are included within the capillary column: bifunctional agent; gel composition; hydrophilic polymer. Thus, while it is preferred that all three components are utilized, this is not an absolute."

18. Guttman ('777) clearly discloses the claimed dynamic coating in column 9, lines 37 – 45.

19. Guttman ('777) discloses said dextran has a molecular weight of 2,000 kilodaltons (column 5, lines 63 – 67) and was obtained from Sigma Chemical Corp., St. Louis, MO with a Product No. D-5376 (column 16, lines 54 – 59) but does not explicitly disclose the linkages therein. The Dextran Product Information from Sigma-Aldrich, St. Louis, MO is cited because it gives details about Product No. D-5376 including the information that dextran possesses a non-cross-linked structure composed of approximately 95% alpha-D-(1-6) linkages (1st page left hand column, Product Description paragraph, first 4 lines).

20. Guttman ('777) clearly states "a polyol" may be used (column 5, line 61). Glycerol is a common polyol that Guttman ('777) mentions in column 16, line 39. Selecting one of the most well known, if not the most well known, polyols when clearly instructed to select a polyol would have been exceedingly obvious to one of ordinary skill in the art. Guttman ('669) simply provides further evidence of such obviousness.

Conclusion

21. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Surekha Vathyam whose telephone number is 571-272-2682. The examiner can normally be reached on 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SV/
7 December 2007

NAM NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700